

Application Serial No. 10/628,791
Reply to Office Action of August 22, 2005

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PATENT

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Amendments to the Claims

The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

Listing of claims:

1. (currently amended) A correction ink for micro defect of a color pattern comprising a coloring agent, monomer having two or more reactivity functional group groups in one molecule, polymer and a solvent, wherein an amount of the solvent is from 25% by weight to 70% by weight of the whole ink, and a viscosity of the ink is from 40 to 300 mPa·sec, and τ value is 0.3 to 1.3 when γ value is 10 and τ value is 4.0 to 10.0 when γ value is 100 in the following formula (1):

$$\tau = K \gamma^L \dots \text{formula (1)}$$

wherein $0.081 \leq K \leq 0.111$, $0.881 \leq L \leq 0.954$.

2. (cancelled)

3. (original) A correction ink for micro defect of a color pattern according to claim 1, wherein τ value is 0.3 to 10 when γ value is 10 to 100 having slope of 0.075 to 0.15 and degree of 0.8 to 1.1 in the following formula (1):

$$\tau = K \gamma^L \dots \text{formula (1)}$$

wherein $0.081 \leq K \leq 0.111$, $0.881 \leq L \leq 0.954$

4. (original) A correction ink for micro defect of a color pattern according to claim 1, wherein static surface tension of the ink at 25° C is 20 mN/m to 45 mN/m.

5. (cancelled)

6. (original) A correction ink for micro defect of a color pattern according to claim 1, further comprising a polymerization inhibitor.

7. (original) A correction ink for micro defect of a color pattern according to claim 1, wherein said polymer is diallylphthalate prepolymer.

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8. (original) A correction ink for micro defect of a color pattern according to claim 1, wherein the ink is a correcting black ink containing a red coloring agent, a yellow coloring agent and a blue coloring agent as said coloring agents.
9. (original) A correcting black ink for micro defect of a color pattern according to claim 8, wherein an optical density is 1.0 or more in the measuring wave range of 400 nm to 760 nm when a layer thickness at curing is less than 1.9 μm .
10. (currently amended) A color filter, wherein a micro defect in a color pattern is corrected by filling with cured product of a correction ink for micro defect of a color pattern comprising a coloring agent, monomer having reactivity functional group, polymer and a solvent, wherein an amount of the solvent is from 25% by weight to 70% by weight of the whole ink, and a viscosity of the ink is from 40 to 300 mPa \cdot sec, and difference in level between a corrected part by the ink and surroundings thereof is -3 μm to +5 μm .
11. (original) A color filter according to claim 10, wherein a defect in a black matrix pattern is corrected by filling with cured product of the correcting black ink containing a red coloring agent, a yellow coloring agent and a blue coloring agent as coloring agents.
12. (cancelled)
13. (cancelled)
14. (cancelled)
15. (cancelled)
16. (cancelled)
17. (cancelled)

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18. (cancelled).
19. (cancelled)
20. (previously presented) A correction ink for micro defect of a color pattern according to claim 1, wherein an amount of the monitor is from 15% by weight to 65% by weight of the total amount of the correction ink.
21. (cancelled)
22. (new) A correction ink for micro defect of a color pattern comprising a coloring agent, monomer having two or more reactivity functional groups in one molecule, polymer and a solvent, wherein an amount of the solvent is from 25% by weight to 70% by weight of the whole ink, a viscosity of the ink is from 40 to 300 mPa•sec, and τ value is 0.3 to 10 when γ value is 10 to 100 having slope of 0.075 to 0.15 and degree of 0.8 to 1.1 in the following formula (1):
$$\tau = K \gamma^{\frac{1}{2}} \dots \text{formula (1)}$$

wherein $0.081 \leq K \leq 0.111$, $0.881 \leq K \leq 0.954$.
23. (new) A correction ink for micro defect of a color pattern according to claim 22, wherein static surface tension of the ink at 25 °C is 20mN/m to 45 mN/m.
24. (new) A correction ink for micro defect of a color pattern according to claim 22, further comprising a polymerization inhibitor.
25. (new) A correction ink for micro defect of a color pattern according to claim 22, wherein said polymer is diallylphthalate prepolymer.
26. (new) A correction ink for micro defect of a color pattern according to claim 22, wherein the ink is a correcting black ink containing a red coloring agent, a yellow coloring agent and a blue coloring agent as said coloring agents.

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27. (new) A correcting black ink for micro defect of a color pattern according to claim 26, wherein an optical density is 1.0 or more in the measuring wave range of 400 nm to 760 nm when a layer thickness at curing is less than 1.9 μm .

28. (new) A correction ink for micro defect of a color pattern according to claim 22, wherein an amount of the monomer is from 15% by weight to 65% by weight of the total amount of the correction ink.

29. (new) A correction ink for micro defect of a color pattern comprising a coloring agent, monomer having two or more reactivity functional groups in one molecule, polymer and a solvent, wherein an amount of the solvent is from 25% by weight to 70% by weight of the whole ink, a viscosity of the ink is from 40 to 300 mPa \cdot sec, said polymer is diallylphthalate prepolymer.

30. (new) A correction ink for micro defect of a color pattern according to claim 29, wherein static surface tension of the ink at 25°C is 20 mN/m to 45 mN/m.

31. (new) A correction ink for micro defect of a color pattern according to claim 29, further comprising a polymerization inhibitor.

32. (new) A correction ink for micro defect of a color pattern according to claim 29, wherein an amount of the monomer is from 15% by weight to 65% by weight of the total amount of the correction ink.

33. (new) A correction ink for micro defect of a color pattern comprising a coloring agent, monomer having two or more reactivity functional groups in one molecule, polymer and a solvent, wherein an amount of the solvent is from 25% by weight to 70% by weight of the whole ink, a viscosity of the ink is from 40 to 300 mPa \cdot sec, the ink is a correcting black ink containing a red coloring agent, a yellow coloring agent and a blue coloring agent as said coloring agents, and an optical density is 1.0 or more in the measuring wave range of 400 nm to 760 nm when a layer thickness at curing is less than 1.9 μm .

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34. (new) A correction ink for micro defect of a color pattern according to claim 33, wherein static surface tension of the ink at 25°C is 20mN/m to 45 mN/m.

35. (new) A correction ink for micro defect of a color pattern according to claim 33, further comprising a polymerization inhibitor.

36. (new) A correction ink for micro defect of a color pattern according to claim 33, wherein said polymer is diallylphthalate prepolymer.

37. (new) A correction ink for micro defect of a color pattern according to claim 33, wherein an amount of the monomer is from 15% by weight to 65% by weight of the total amount of the correction ink.